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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/862,391
Filing Date: May 21, 2001
Appellant(s): MILNE ET AL.

Timothy Baumann
Reg. No. 40,502
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 14 May 2007 appealing from the Office action mailed 19 September 2006.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying that the present application is a parent application of application 10/112,228 which was field on March 28, 20002, which also includes an appeal pending before the Board.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments

All amendments have been entered.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Grounds of Rejection To Be Reviewed On Appeal

The appellant's statement on the grounds of the rejection in the brief is correct.

(7) Claims 1-13 (Appendix)

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal:

Margulis et al.,	US 6,340,944	01-2002
Trovato et al.,	US 6,469,742	10-2002
Phillips et al.,	US 6,072,994	06-2000

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis et al., US 6,340,994, in view of Trovato et al., US 6,469,742 and Phillips et al., US 6,072,994.

In considering claims 1

Margulis discloses a digital video system which includes modules, such as input module 210 (meeting the claimed processing chassis) which includes an A/D conversion 3002, and output module 230 (meeting the claimed presentation chassis) (Fig 2, detail Figs 3-4 respectively) where the modules are connected to the system/each other via databus 250 (the claimed interface) (Fig 2), and wherein each module includes it's own databus 350, 450 respectively) for processing the received data including audio and video. Margulis also discloses that the system can be implemented in either hardware or software or some combination of fixed function, configurable logic or programmable hardware (col 23, line 41-44).

In light of the specification, wherein the appellant discloses removable modules being implemented in the digital modular television, the examiner will provide evidence of such, where it has been known to utilize/configure a television using modules (which may be replaced/upgraded as disclosed by appellant).

The examiner has cited numerous references—see attached PTO-892, however the examiner will rely on Trovato et al., (US 6,469,742) which discloses an upgradeable TV where the modules may be

replaced manually. Trovato discloses that the modules may include video processing units (col 4, line 6-12), audio processing units, timer units, communication modules etc...

Therefore, it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify Margulis which discloses a modular design system which may be configurable/programmable in order to receive/output multiple signals, by utilizing replaceable/upgradeable modules as done by Trovato in order to provide the user the conventional ability of upgrading/replacing the system to suit the users needs/requirements.

Regarding the dedicated power sources for each module, the combination of Margulis and Trovato do not explicitly disclose as such.

However, the concept of providing separate power sources in separate modules is conventional in the art, as evidenced by Phillips et al., (US 6,072,994), which discloses that the use of separate power supplies for separate modules (col 33, line 33-47) can be utilized to isolate the components, thereby reducing noise.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Margulis/Trovato combination which discloses a replaceable/upgradeable module digital video processing system with Phillips by providing separate power to the components/modules for the noted advantages as stated above.

Regarding the newly added limitation of global interface with technology-independent communication. Margulis discloses the use of interfaces/modules which uses an high speed digital data transmission technique as that described in IEEE 1394 (i.e. plug-n-play, different modules/devices being able to communicate on the high speed data path). Also, as disclosed by appellant's own specification, this limitation is met by established standards such as DVI or EIA 861, thus since Margulis discloses the concept of interfacing using an established pattern such as 1394, the use of DVI or EIA-861 are standards available by the user/designer since each standard offers it's own advantages respectively, and the selection of such derives no unexpected results.

In considering claims 2-3,

The combination above discloses a digital video system which interfaces with analog/digital audio and video signals.

In considering 4,

Margulis discloses an output processor 230 which is able to produce a high resolution image.

In considering claim 5,

Refer to the rejection of claim 1.

In considering claims 6, 8 and 12,

Margulis discloses that the display systems may be either LCD or CRT monitor systems.

In considering claim 7,

Margulis discloses that the system may receive image/data signals requiring the use of a tuner (not shown) or not (col 6, line 45-63).

In considering claims 10 and 13,

Margulis discloses the use of line-doubling (col 3, line 21-35), which is included in the DIP (processing module using IR 318).

Claims 9 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Margulis et al., US 6,340,994, in view of Trovato et al., US 6,469,742.

Margulis discloses a digital video system which includes modules, such as input module 210 (meeting the claimed processing chassis) which includes an A/D conversion 3002, and output module 230 (meeting the claimed presentation chassis) (Fig 2, detail Figs 3-4 respectively) where the modules are connected to the system/each other via databus 250 (the claimed interface) (Fig 2), and wherein each module includes it's own databus 350, 450 respectively) for processing the received data including audio and video. Margulis also discloses that the system can be implemented in either hardware or software or some combination of fixed function, configurable logic or programmable hardware (col 23, line 41-44).

In light of the specification, wherein the appellant discloses removable modules being implemented in the digital modular television, the examiner will provide evidence of such, where it has

been known to utilize/configure a television using modules (which may be replaced/upgraded as disclosed by appellant).

The examiner has cited numerous references—see attached PTO-892, however the examiner will rely on Trovato et al., (US 6,469,742) which discloses an upgradeable TV where the modules may be replaced manually. Trovato discloses that the modules may include video processing units (col 4, line 6-12), audio processing units, timer units, communication modules etc...

Therefore, it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to modify Margulis which discloses a modular design system which may be configurable/programmable in order to receive/output multiple signals, by utilizing replaceable/upgradeable modules as done by Trovato in order to provide the user the conventional ability of upgrading/replacing the system to suit the users needs/requirements.

Regarding the newly added limitation of global interface with technology-independent communication. Margulis discloses the use of interfaces/modules which uses an high speed digital data transmission technique as that described in IEEE 1394 (i.e. plug-n-play, different modules/devices being able to communicate on the high speed data path). Also, as disclosed by appellant's own specification, this limitation is met by established standards such as DVI or EIA 861, thus since Margulis discloses the concept of interfacing using an established pattern such as 1394, the use of DVI or EIA-861 are standards available by the user/designer since each standard offers it's own advantages respectively, and the selection of such derives no unexpected results.

Appellant's Arguments

a) Appellant states that claim 9 is allowable because the proposed combination does not teach or suggest a presentation module that forms a final signal. The Appellant states that the DOP does not form a final signal for display, since the modulator 245 must perform additional processing on the signal to form a displayable signal.

Examiner's Response

a) The examiner disagrees. Margulis discloses the signal input into modulator 245 is used for projecting the image, wherein DOP sends the display images and control information to a digital memory or modulator (col 23, line 32-37) thus the images are in their final form, the memory or modulator are used to store or display such images, meeting the claim.

Appellant's Arguments

b) Appellant states there is not motivation to modify Margulis as suggested by the examiner to include a global interface. Appellant states that it is not clear from the Examiner's remarks whether the Examiner is suggesting that DIP/DOP interface may not standardized and can be modified to include a global interface or the interface is standardized and for that reason can be modified to be a global interface to handle all types of communications. Appellant states if the Examiner is suggesting that the DIP/DOP interface is not standardized the Appellant disagrees since the DIP/DOP interface handles internal communications over the bus 250, and converting bus 250 to be a global interface would require additional hardware and/or software support and significantly slow communication along bus 250. On the other hand the Appellant states that even if the DIP-DOP interface operated according to a particular standard, there is no motivation to make the DIP and a DOP that operate according to completely different standards (thereby requiring a global interface).

Examiner's Response

b) The examiner disagrees. A review of the appellants disclosure (page 7, lines 15-22) states that in one embodiment the interface is the DVI standard and in alternative embodiment the use of the EIA 861 standard for the global interface. In addition, the examiner notes that Margulis does disclose another standard, the IEEE-1394, and if the appellant can use any type of standard as argued, this would then be another standard to choose from.

It is noted that the examiner utilized Margulis, which discloses input/output processing modules in a TV environment in view of Trovato, which discloses that a TV which consists of modules may be upgradeable/removable (replaced manually).

The appellant is correct in that Margulis discloses an IEEE-1394 interface at the input of digital input control 304 (Fig 3). As noted in the rejection Margulis also discloses data buses 250 (between

modules) and 350 (within module). Margulis does not disclose what standard these buses operate in accordance with, although they communicate information between each other. The combination of Margulis and Trovato provides a modular system which may replace/upgrade modules in a TV environment accordingly, including video, audio, RF, IR, serial/parallel ports, graphic processors, game interfaces, tape CD, CD-ROM etc (Trovato col 4, line 6-12), thus these modules must be able to communicate information to/from each other. As stated above in the rejection, the use of a standard within a system for transferring/processing data are known, via IEEE-1394 which is used by Margulis, or other standards such as DVI or EAI 861 as disclosed by the appellant are conventional interfaces available in the connection of devices/modules and the use of either standard would have it's advantages/disadvantages, however the use of either one provides predictable results. As recently decided by the Supreme Court in KSR vs Teleflex, "If a person of ordinary skill in the art can implement a predictable variation, and would see the benefit of doing so, a 103 likely bars its patentability". In the instant case the implementation of using an available standard (such as appellants disclosed DVI or EAI 861 to communicate information provides the system the expected result by using such standard.

Appellant's Arguments

c) Appellant states that the proposed modification would render Margulis inoperative for its intended purpose. The appellant states that if the DIP-DOP connection is made to be universal, all other interfaces in the system would likely need to be universal or the elements in the system would not be able to properly function together. The appellant states that since system 200 is intended to be a very high speed system, the change to a low speed system would make the system unstable for it's intended purpose.

Examiner's Response

c) The examiner disagrees. The appellant's argument appears to substantiate the examiner's statement that although, Margulis discloses the standard of the input (i.e. IEEE-1394) although does not disclose the standard of the internal buses, they must communicate information to/from/within the modules. This is in line with the examiner's position that it would be obvious to one of ordinary skill in the art to use a standard (e.g. IEEE-1394, DVI or EAI 861 which are all known standards) to communicate information between respective modules which would provide the capability of the modules to transfer/receive data to/from one another. The examiner disagrees that using a standard communication protocol between devices would slow the system down since a standard communication protocol ensures data is routed to/from devices in capable manner.

For the above reasons, it is believed that the rejections be sustained.

Respectfully submitted,

BPY

30 August 2007

BRIAN P. YENKE
PRIMARY EXAMINER

Conferees:

David Ometz (SPE)

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SUPERVISORY PATENT EXAMINER

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